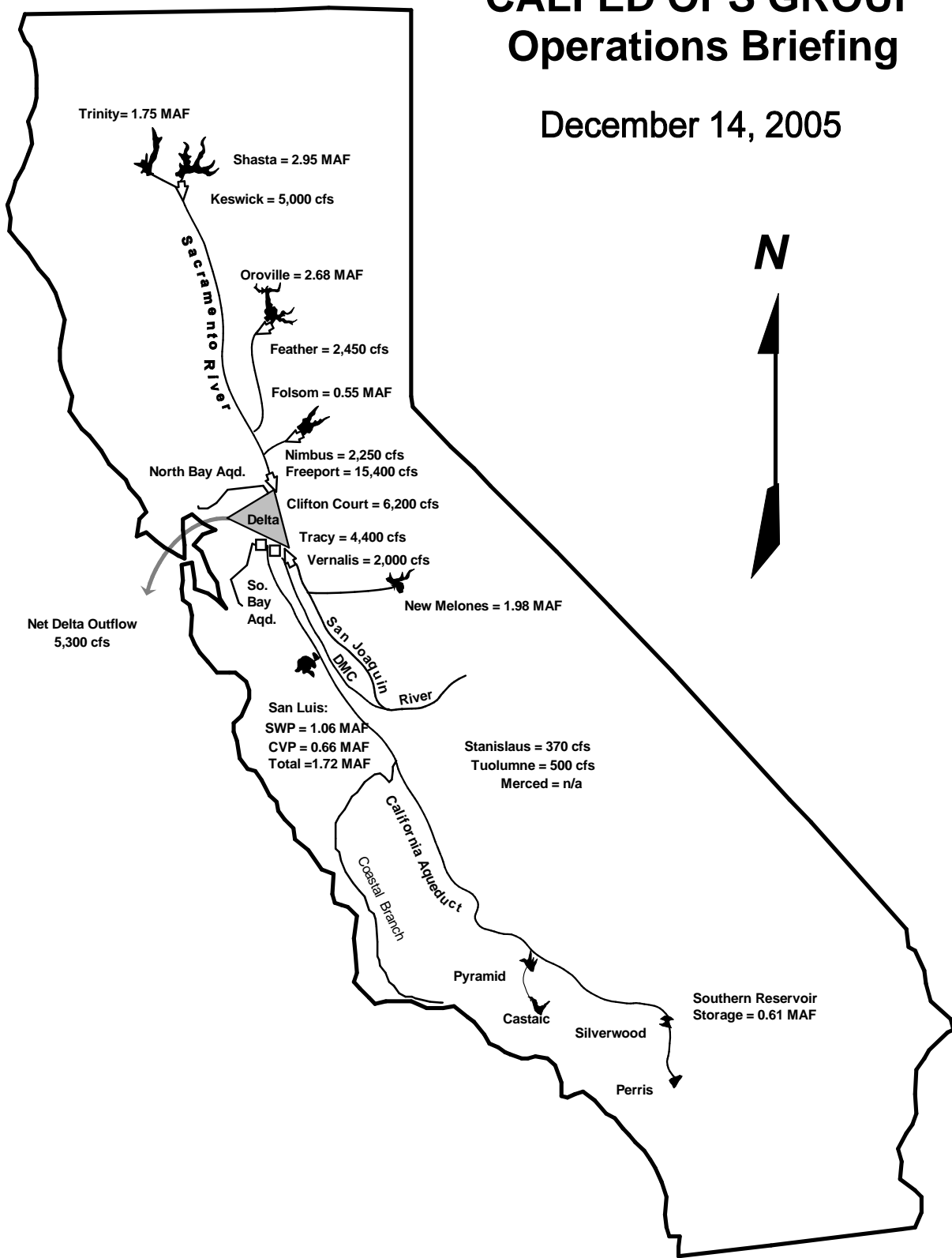


# CALFED OPS GROUP Operations Briefing

December 14, 2005



# Average Delta Hydrology Conditions

Average calculated from:  
12/07/2005 thru 12/13/2005  
All values in cfs.

Delta Conditions: Balance Condition

Delta Cross

Channel Gates: Closed

7 Day Average % of  
Inflow Diverted: 57.22%

Net Delta  
Outflow Index

7,215

Sacramento  
River

16,491

Yolo Bypass

0

East Side Streams

445

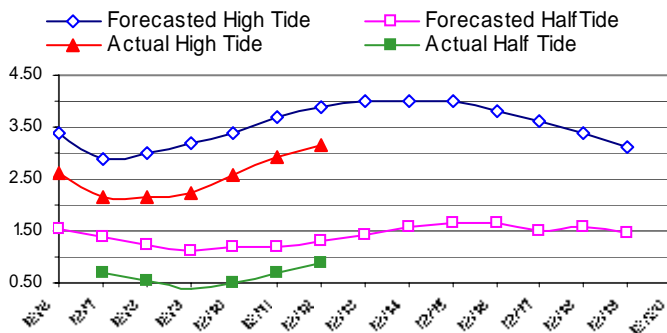
Net Consumptive  
Use \*

2,146

\* Consumptive Use  
minus Runoff based  
on Stockton  
precipitation.

Stockton Fire  
Station #4

Antioch Tides



SWP & CVP  
Diversions

10,831

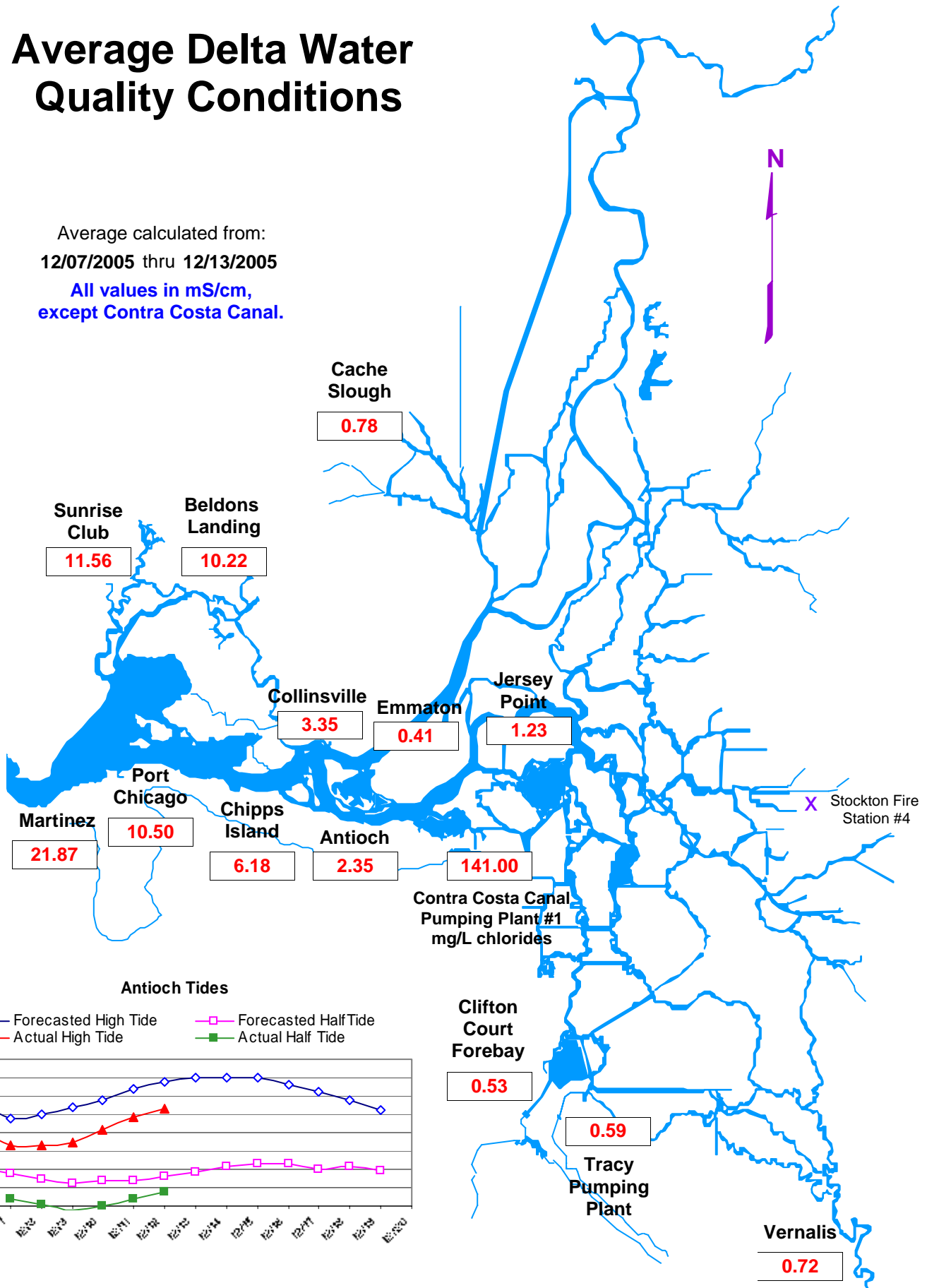
San Joaquin  
River

2,079

# Average Delta Water Quality Conditions

Average calculated from:  
12/07/2005 thru 12/13/2005

All values in mS/cm,  
except Contra Costa Canal.



**DRAFT**

# Bay-Delta Standards

Contained in D-1641

**DRAFT**

CRITERIA	Nov 05	Dec 05	Jan 06
<b>FLOW/OPERATIONAL</b>			
<ul style="list-style-type: none"> <li>Fish and Wildlife</li> <li>SWP/CVP Export Limits</li> <li>Export/Inflow Ratio</li> <li>Minimum Outflow - mon. - 7 day avg.</li> <li>Striped Bass Survival</li> <li>Suisun Marsh</li> <li>Habitat Protection Outflow, X2</li> <li>River Flows:</li> <li>@ Rio Vista - min. mon. avg. - 7 day average</li> <li>@ Vernalis: Base -min. mon. avg. - 7 day average</li> <li>Pulse</li> <li>Delta Cross Channel Gates</li> </ul>			
		65%	
	4500 cfs	4500 cfs	4500 cfs
	3500 cfs	3500 cfs	3500 cfs
	4500 cfs	4500 cfs	
	3500 cfs	3500 cfs	
	Conditional: For the Nov-Jan period, DCC gates may be closed for up to a total of 45 days		

**WATER QUALITY STANDARDS**

<ul style="list-style-type: none"> <li>Municipal and Industrial</li> <li>All Export Locations</li> <li>Contra Costa Canal</li> </ul>			
	<= 250 mg/l Cl		
	<= 150 mg/l for 175 days (days have been met)		
<ul style="list-style-type: none"> <li>Agriculture</li> <li>Southern Delta</li> </ul>			
	30-day running average EC <= 1.0 m <sup>l</sup>		
<ul style="list-style-type: none"> <li>Fish and Wildlife</li> <li>Suisun Marsh Salinity</li> </ul>	15.5 mS/cm for Eastern / 16.5 for Western Marsh sta	15.5 mS/cm	12.5 mS/cm

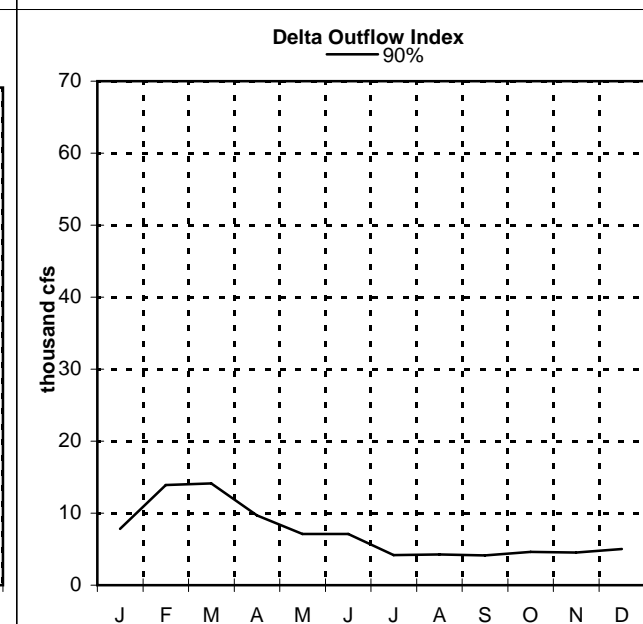
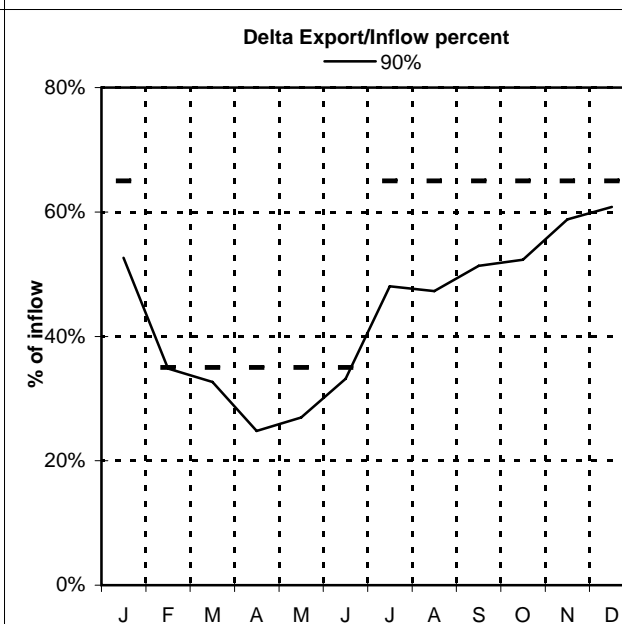
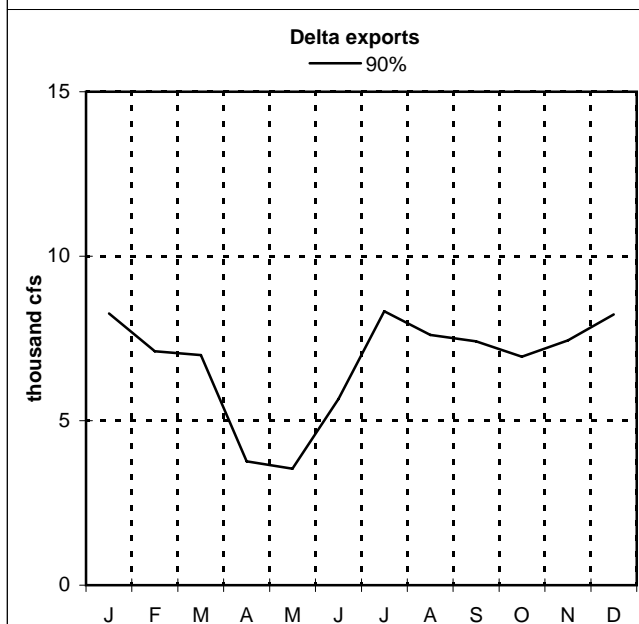
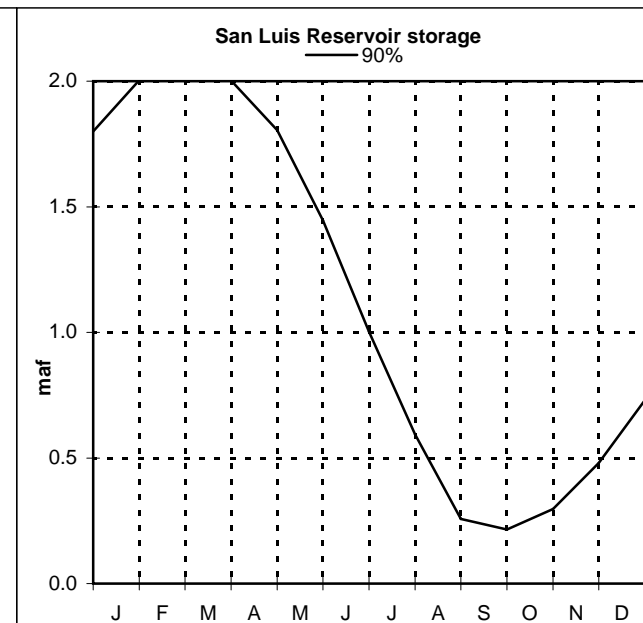
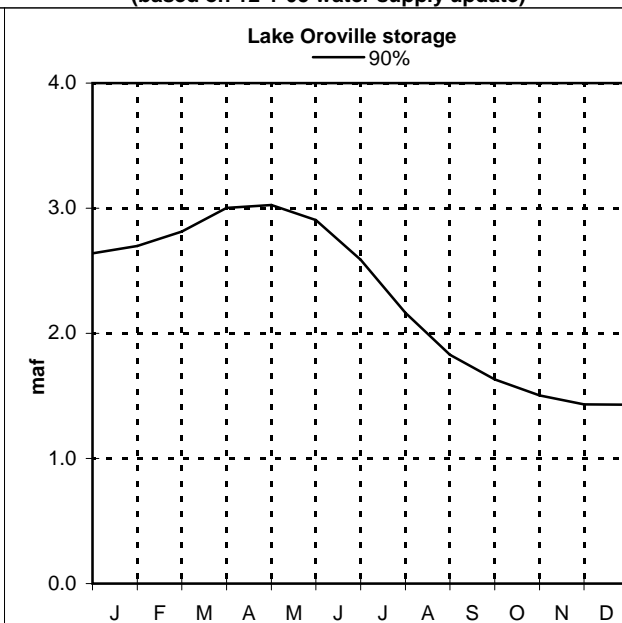
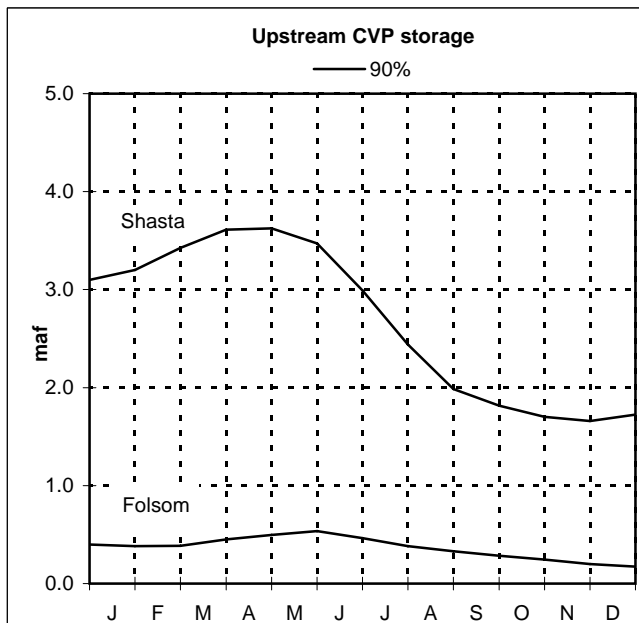
**Water Year Classification: (May 1 forecast)**

SRI (40-30-30 @ 50%) = 7.4 ( Below Normal)

SJV (60-20-20 @75%) =4.2 ( wet )

# SWP & CVP CY 2006 Forecasted Operations

(based on 12-1-05 water supply update)



Flows are monthly averages.

O&M; cfpl120105.xls

PRELIMINARY DATA - SUBJECT TO REVISION

12/14/2005 11:28 AM

WY 2004/2005 EWA Accounting Summary  
Based upon October Operations Study - 90% Exceedance Hydrology  
**Assumptions:** SWP Allocation - 90%; SOD Purchases - 148.5 TAF  
**(Pre-VAMP shoulder started on 4/17/05; VAMP started on 5/1/05)**

EWA NOD and SOD Assets ((+ = Purchases) and (- = Releases))																	
1	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
TOTAL WY 2004/2005 NOD <sup>9</sup>				6.2 <sup>5</sup>				62.0 <sup>11</sup>		-6.2 <sup>5</sup>							62.0
NOD (Oroville)																	0.0
NOD (non-Oroville)		18.7 <sup>4</sup>															0.0
YCWA <sup>3 &amp; 11</sup>	0.9 <sup>3</sup>	-0.9 <sup>3</sup>						62.0 <sup>11</sup>						-2.5 <sup>11</sup>		-59.5 <sup>11</sup>	59.5
PCWA (released into Folsom)	7.9 <sup>4</sup>	7.9 <sup>4</sup>	2.9 <sup>4</sup>														18.7
Instream Uses/Non-Capturable Water					-15.4 <sup>12</sup>	-3.3 <sup>12</sup>											-18.7
SFWP <sup>5</sup>				6.2 <sup>5</sup>						-6.2 <sup>5</sup>							0.0
MID <sup>12</sup>																	0.0
TOTAL WY 2004/2005 SOD <sup>9</sup>										38.5 <sup>13 15</sup>		110.0 <sup>14 16</sup>					148.5
SOD (KCWA) <sup>13 &amp; 14</sup>								-29.7 <sup>13</sup>		-30.0 <sup>14</sup>		-30.0 <sup>14</sup>					-89.7
SOD (SCVWD) <sup>15</sup>										-8.8 <sup>15</sup>							-8.8
SOD (MWD) <sup>16</sup>										-20.0 <sup>16</sup>		-20.0 <sup>16</sup>		-10.0 <sup>16</sup>			-50.0

EWA Asset Acquisition in SWP San Luis <sup>1</sup>																	
2	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
E/I Relaxation																	0.0
EWA share of SWP gain			0.29														0.3
Project Pumping to reduce EWA debt						34.5					29.6	28.5	27.9				120.5
JPOD using excess flows																	0.0
JPOD using NOD storage																	0.0
Xfer NOD - Sacramento River <sup>2</sup>		0.9 <sup>3</sup>												2.5			3.3
Xfer NOD - San Joaquin River <sup>2</sup>																	0.0
SOD SWP Surface/GW Purchases										29.7 <sup>13</sup>		58.8 <sup>14 to 16</sup>	50.0 <sup>14 &amp; 16</sup>	10.0 <sup>16</sup>			148.5
Exchange of EWA assets																	0.0
Groundwater pumping SOD																	0.0
Exchange from CVP to SWP in SL																	0.0
Total Monthly EWA Assets		0.9	0.3	0.0	0.0	34.5	0.0	0.0	0.0	29.7	29.6	87.3	77.9	12.5	0.0	0.0	272.7

EWA Asset Acquisition in CVP San Luis <sup>1</sup>																	
3	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
E/I Relaxation																	0.0
Project Pumping to reduce EWA debt							28.6										28.6
JPOD using excess flows																	0.0
JPOD using NOD storage																	0.0
Xfer NOD - Sacramento River <sup>2</sup>																	0.0
Xfer NOD - San Joaquin River <sup>2</sup>																	0.0
SOD CVP Surface/GW purchases																	0.0
Exchange of EWA assets																	0.0
Groundwater pumping																	0.0
Exchange from SWP to CVP in SL																	0.0
Total Monthly EWA Assets	0.0	0.0	0.0	0.0	0.0	0.0	28.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.6

EWA Expenditures at the Export Pumps																	
4	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
SWP export cuts				-4.2 <sup>6</sup>		-32.8 <sup>7</sup>		-121.9 <sup>8</sup>	-134.0 <sup>8</sup>	-34.7 <sup>8</sup>							-327.6
CVP export cuts						-11.4 <sup>7</sup>		0.0 <sup>9</sup>	0.0 <sup>9</sup>								-11.4
Total Expenditures	0.0	0.0	0.0	-4.2	0.0	-44.2	0.0	-121.9	-134.0	-34.7	0.0	0.0	0.0	0.0	0.0	0.0	-339.0

EWA End-of-Month Incremental Storage Changes																	
5	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
SWP in SL (without Source Shift)	1.4	0.9	0.3	-4.2	0.0	1.6	0.0	-121.9	-134.0	-5.0	29.6	87.3	77.9	12.5	0.0	0.0	-53.5
CVP in SL	-17.2	0.0	0.0	0.0	0.0	-11.4	28.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NOD Storage	0.9	17.8	0.0	6.2	-15.4	-3.3	0.0	62.0	0.0	-6.2	0.0	0.0	0.0	-2.5	0.0	-59.5	0.0
SOD Storage (non-S.L.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8	0.0	51.2	-50.0	-10.0	0.0	0.0	0.0
Total Incremental Storage Changes	-14.9	18.7	0.3	2.0	-15.4	-13.1	28.6	-59.9	-134.0	-2.3	29.6	138.5	27.9	0.0	0.0	-59.5	-53.5

EWA Cumulative End-of-Month Storage Balance at Various Sites																	
6	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
SWP in SL (without Source Shift)	1.4	2.2	2.5	-1.6	-1.6	0.0	0.0	-121.9	-255.9	-260.8	-231.2	-143.9	-66.0	-53.5	-53.5	-53.5	
CVP in SL (without Source Shift)	-17.2	-17.2	-17.2	-17.2	-17.2	-28.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
NOD Storage	0.9	18.7	18.7	24.9	9.5	6.2	6.2	68.2	68.2	62.0	62.0	62.0	62.0	59.5	59.5	0.0	
SOD Storage (non-S.L.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8	8.8	60.0	10.0	0.0	0.0	0.0	
EWA Asset Balance	-14.9	3.8	4.1	6.1	-9.3	-22.4	6.2	-53.7	-187.7	-190.0	-160.4	-21.9	6.0	6.0	6.0	-53.5	

San Luis Reservoir End-of-Month Storage Conditions																	
7	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Total Storage (base case) <sup>10</sup>		803	1072	1301	1829	1997	2030	2020	1952	1827	1575	1341	1394	1516	1681	1774	
SWP		520	601	674	1015	1100	1063	1055	1057	1026	1005	964	991	1044	1076	1062	
CVP		283	471	628	814	897	966	965	895	802	570	378	403	473	605	712	
Encroachment																	
Total Storage (EWA case)		788	1058	1283	1810	1968	2030	1898	1898	1567	1343	1197	1328	1463	1627	1721	
MWD Source Shifting																	
Storage (with MWD source shifting)		788	1058	1283	1810	1968	2030	1898	1898	1567	1343	1197	1328	1463	1627	1721	

<sup>5</sup> 2005 NOD Purchases = 0. DWR on behalf of EWA entered into an agreement with SFWP for 6.2 TAF. However, this water spilled out of Lake Oroville in June.

DWR on behalf of EWA entered into an agreement with YCWA for 62 TAF.

2005 SOD Exchange/Purchase = 50(MWD) + 60(KCWA). Prop 204 = 29.7(KCWA) + 8.8(SCVWD).

<sup>1</sup> Aqueduct conveyance and evaporation losses are not included.

<sup>2</sup> Carriage water loss applies to water transfers from the Sacramento River (assumed to be 20% until modeling results indicate otherwise);

a 10% conveyance loss applies to water transfers from the San Joaquin River.

Carriage water loss in WY 2005 was 0%.

<sup>3</sup> 2004 YCWA Transfer (Joint place of use) <sup>4</sup> 2004 PCWA Transfer (Joint place of use)

<sup>5</sup> 2005 SFWP Transfer (Joint place of use). This water later spilled out of Lake Oroville in June.

<sup>6</sup> About 4.2 TAF was expended for the Delta Action 8 experiment which occurred between 12/6/04 - 12/15/04.

<sup>7</sup> A total of 58.2 TAF was expended for the export curtailment which occurred between 2/205 - 2/7/05. The CVP's cost for the action was 25.4 TAF; B2 covered 14 TAF.

<sup>8</sup> The SWP's cost for VAMP is about 134 TAF. The cost for a Pre-VAMP Shoulder is about 122 TAF.

<sup>9</sup> The CVP's costs for the pre-VAMP shoulder and VAMP were covered by B2.

<sup>10</sup> Based upon the 11/2005 DWR's 90% (90% Fall) allocation study and 11/2005 USBR's 90% b2 study.

<sup>11</sup> 2005 YCWA Transfer (Joint place of use). Transfer occurred when Delta in balanced condition during 10/27 - 10/31.

<sup>12</sup> The CVP spilled ~ 3.3 TAF of EWA water stored in Folsom during flood control operations.

<sup>13</sup> 2005 Prop 204 SOD Transfer (SWP place of use) - KCWA <sup>14</sup> 2005 KCWA Purchases (SWP place of use)

<sup>15</sup> 2005 Prop 204 SOD Transfer (SWP place of use) - SCVWD

<sup>16</sup> 2005 MWD Exchange (SWP place of use) DWR on behalf of EWA owes MWD 50 TAF in a dry year when SWP allocations are 60% or less and MWD requests return.